Haybet Barley MONTANA Extension Service UNIVERSITY EB 121 January 1994

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1986-1987).

OATS

Monida

Otana

Howard Bowman, Dennis Cash, Gregg Carlson and Tom Blake*

Haybet Barley

Haybet (CI 16569) was developed and released cooperatively by the Agricultural Research Service and the Montana Agricultural Experiment Station from the cross of 'Betzes'/'Strip Tease' made in 1960. This initial cross was backcrossed to Betzes six times, maintaining the hooded characteristics. Betzes was grown in Montana as a malting barley; Strip Tease is the dwarf, hooded parent. In 1970 the F_4 generation of bulk seed of eight hooded normal palea lines were tested for grain and hay yields. These lines were again tested in 1973 through 1975 and in 1985 through 1987. Twenty line rows were selected in 1987 and the variety from these rows was named Haybet. The first bulk breeders' seed was produced in 1987. Foundation seed was released to certified producers in 1988.

Agronomic Characteristics

Haybet is a two-rowed, hooded variety with white kernels. It is a spring hay barley with spike and kernel characteristics similar to its backcross parent Betzes. Haybet is similar to Horsford, which has been extensively grown in Montana as a hay barley. Haybet heads four to five days later than Horsford under both dryland and irrigated conditions. Plant heights are similar but Haybet is taller under irrigation and high rainfall conditions.

Insect and Disease Resistance

Haybet has not been fully tested to evaluate it for insect and disease resistance, but should be similar to its backcross parent Betzes.

Recommended Areas for Production

Haybet is recommended for forage production in all irrigated and dryland areas of Montana.

Field Performance

Haybet, grown under irrigation, produced 33 percent more forage than Horsford and was equal to Ridawn. The protein content of Haybet was slightly less than the other two hay barleys tested but was higher than the oat varieties (Table 1). At Kalispell, under high rainfall conditions, Haybet produced 20 percent more forage than Horsford or Ridawn, but less than Monida or Otana oats (Table 2). Although the protein in concentration of Haybet forage was lower than Ridawn, Haybet produced more total protein per acre than Horsford, Ridawn, and Monida oats.

Haybet grown at four dryland locations produced 19 percent more forage than Horsford and 13 percent more than Ridawn, Otana or Monida oats (Table 3). Across all the locations, Haybet produced the most protein per acre. The varieties in all trials were harvested at the medium to hard dough stages.

Nitrate (NO₃) content should always be checked in cereal grains harvested for forage. For further information on nitrate poisoning, refer to MontGuide MT 9301 "Nitrate Poisoning in Forages" which is available at your County Extension Office.

Table 1. Forage Hay Trials (average for three irrigated locations: Bozeman, Huntley and Sidney, 1986-1987)

Variety	Approx. Heading Date ¹		Height	Forage Yield (Tons/A)		Total Crude Protein (lb/A)
BARLEY	7					
HAYBET	172	61	32	3.2	9.0	576
Horsford	169	58	34	2.4	9.2	442
Ridawn	176	65	31	3.1	9.7	601
OATS						
Monida	175	64	40	3.7	8.2	607
Otana	175	64	42	3.6	8.4	605

¹Number of days from January 1.

Days to Forage Total Approx. Heading Plant Forage Crude Crude Heading from Height Yield Protein Protein Date¹ Planting (Inches) (Tons/A) (%) (lb/A) Variety **BARLEY HAYBET** 178 65 38 2.9 11.3 655 60 Horsford 173 35 2.4 11.7 562 Ridawn 181 68 37 2.4 13.1 629

Table 2. Forage Hay Trials (high rainfall Kalispell,

¹Number of days from January 1.

65

65

178

178

Table 3. Forage Hay Trials (average of four dryland locations: Bozeman, Havre, Huntley and Moccasin, 1986-1987).

44

46

3.1

3.2

10.3

10.5

638

672

69 65	28 29	2.5 2.1	9.5 9.1	475 382
-			,	
65	29	2.1	9 1	202
			J.1	362
72	26	2.2	10.2	449
69	32	2.2	9.9	436
69	35	2.2	9.1	400
	69 69	69 32	69 32 2.2 69 35 2.2	69 32 2.2 9.9 69 35 2.2 9.1

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